

REMARKS/ARGUMENTS

Claims pending in this application are Claims 1-22. The body of the specification and Claims 3-5, 13, and 21 are amended to correct informalities. Claim 12 has been cancelled without prejudice and rewritten in independent form. Claim 3 has been amended and the polycaprolactone binder has been written in independent form into Claim 1. Claim 16 has been canceled without prejudice and rewritten in independent form into Claim 15. Claim 20 has been canceled without prejudice and rewritten in independent form into Claim 19. Accordingly, upon entry of these amendments, Claims 1-22 will be before the Examiner for consideration.

Specification Objections

1. The Examiner has objected to the specification because of the following informalities. There are (3) three words that the Examiner has discovered that are misspelled. The following misspelled words in the specification are: “dinitrazaundecanoate”, “n-butyl-2-nitratoethyl-nitramine”, and “polyglycidyl nitrate”. Applicants has corrected the spelling of these words in the body of the specification at replacement paragraphs: [page 9, lines 1-9] [pages 9-10, lines 10-25 and 1-4] [page 11, lines 6-14] [page 14, lines 3-10] [pages 14-15, lines 11-13 and 1-5] [page 18, lines 10-18] and [pages 20-21, lines 1-2 and 1-5]. In addition, the term “about” was inserted twice in the same place in several of the above replacement paragraphs, which have been deleted.

These same spelling mistakes were also made and presently corrected in the Claims section of the application. In addition, Applicants also found other spelling mistakes and have been corrected including: “dinitrazaundecanoate” in Claims 1 and 15, “n-butyl-2-nitratoethyl-nitramine” in Claims 4, 13, and 21, “polyglycidyl nitrate” in Claims 3, “plasticizer” in Claim 4, and “modifier” in Claim 5. The Applicants appreciate and thank the Examiner for pointing out such corrections.

35 U.S.C. § 103(a) Rejection and Allowable Subject Matter

2. The Examiner has rejected Claims 1-12 and 14-22 under 35 U.S.C. §103(a) as being unpatentable over Highsmith et al., (U.S. Pat. No. 6,362,331 B1 hereinafter

referred to as the '331 reference) in view of Day et al., (U.S. Pat. No. 4,916,206 hereinafter referred to as the '206 reference) and Wood et al., (U.S. Pat. No. 6,074,581 hereinafter referred to as the '581 reference). Per telephone conversation with Examiner on May 5, 2004, it was agreed that the rejected Claims were 1-11 and 13-22, and not 1-12 and 14-22 because Claim 13 that was stated by Examiner to have allowable subject matter of polycaprolactone which was actually in Claim 12. Applicants respectfully traverse to Claims 15-22.

The Office Action states that the "[I]t would have been obvious at the time that the invention was made to incorporate DNUDA(ORP) into the minimum-smoke propellant of Highsmith et al., because Highsmith et al., discloses that energetic binders generally may be added, and Day et al., teaches that DNUDA is a useful energetic binder in propellants." And further, the Office Action states that it would have been obvious at the time that the invention was made to use the prills of Wood et al., in the minimum-smoke propellants of Highsmith et al., because Highsmith et al., discloses that ADN is useful therein, and Wood et al., teaches a method of making prills of the recited diameter which are made safely and may be stabilized for safety reasons.

Claim 16 has been rewritten in independent form into Claim 15 to include the ORP binder to overcome the 103(a) rejection. Similarly, Claim 20 has been rewritten in independent form into Claim 19 to include the polyglycidyl nitrate binder. Support for such amendments to independent Claims 15 and 19 are described in the Applicants' application.

Combining the factual inquires set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966) and later endorsed by *In re Oetiker*, 977 F.2d 1443, 24 USPQ 2d 1443 (Fed. Cir. 1992), indicates that a prima facie case of obviousness is established when the Examiner provides the following elements:

1. One or more references
2. that were available to the inventor and
3. that teach
4. a suggestion or combine or modify the references,
5. the combination or modification of which would appear to be sufficient to have made the claimed invention obvious to one of ordinary skill in the art.

Accordingly, an applicant who is able to prove that the Examiner has failed to establish any one of these elements should prevent the prima facie case of obviousness from being established. The Federal Circuit has endorsed this view in *In re Oetiker*, stating that “[i]f the examination at the initial stage does not produce a prima facie case of unpatentability, then without more the [A]pplicants are entitled to grant of the patent.”

The following arguments of Applicants are in light of the newly amended Claims 15 and 19. The fourth element requires some reason, suggestion, or motivation from the prior art as a whole for the person of ordinary skill to have combined or modified the references. [O]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion ...supporting the combination”. (see *In re Geiger*, 815 F.2d 686, 2 USPQ 2d 1276, 1278 (Fed. Cir. 1987)).

The Examiner states that the Highsmith teaches a method of making polyglycidyl nitrate and making an explosive with that polyglycidyl nitrate including ADN, however, it does not teach or suggest or modify its explosive composition to use ADN prills nor does it teach or suggest the use of ORP, nor polycaprolactone. Furthermore, it is stated that the Wood reference teaches the method of prilling ADN, however, it does not teach nor suggest to combine the ADN prills with an explosive composition having ORP, nor polycaprolactone and polyglycidyl nitrate, nor any other chemical composition claimed in Applicants’ application. Finally, it is stated that the Day reference teaches making ORP, and merely states that it can be used in energetics, however, it too does not teach or suggest combining ORP with polyglycidyl nitrate, polycaprolactone, ADN prills, nor any other chemical composition claimed in Applicants’ application.

The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. The Applicants recognize that one can theoretically explain the technological rationale for the claimed invention using selected teachings from the references, however, this approach has been criticized by our reviewing courts as hindsight construction. (see *In re Fine*, 837 F.2d at 1075, 5 USPQ 2d at 1600). Applicants respectfully believe that the Examiner is relying on hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an

instruction manual or “template” to piece together the teachings of the prior art so that the claimed invention is rendered obvious. One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. Furthermore, the Day reference was available to the applicants in Highsmith, et al., but Highsmith did not teach or suggest the use of ORP. Additionally, the Day reference was available to the Applicants of Wood, et al., but Day did not teach or suggest using ORP or polyglycidyl nitrate. Neither the Highsmith, Wood, nor Day references teach or suggest the claimed invention as a whole of the Applicants’ application.

The Examiner’s rejection is not specific as to how one of ordinary skill in the art would have found it obvious to practice any specific method within the scope of these claims as a whole of the filing date of this application. Therefore, Applicants believe that the combining of these references is not proper to establish a prima facie case of obviousness.

Since neither of the above references teach nor suggest the subject matter as a whole in either newly amended Claims 15 and 19, reconsideration of newly amended Claim 15 and its dependent Claims 17-18 as a whole, and reconsideration of newly amended Claim 19 and its dependent Claims 21 and 22 as a whole; withdrawal of this ground for the 103(a) rejections is respectfully requested.

2. In response to rejected claims 11-14, the Examiner stated that Claim 13 (now Claim 12) would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Since Examiner has stated that Claim 12 includes allowable subject matter, Applicants have rewritten Claim 12 in independent form into Claim 11 to include the allowable subject matter of the polycaprolactone binder. Support for such amendment to independent Claim 11 is described in the Applicants’ application. Accordingly, since newly amended Claim 11 incorporates the allowable subject matter of Claim 12, Claim 11 and its dependent Claims 13 and 14 should overcome the 103(a) rejection and should be in condition for allowance.

3. The following amendment is in response to rejected Claims 1-10. Since Claim 3 also includes the allowable subject matter of the polycaprolactone binder as in Claim 12, Applicants have also rewritten Claim 3 in independent form into Claim 1. Claim 3 has

been amended to further include the remaining binders of poly(diethyleneglycol-4,8-dinitrazaundecanoate) and polyglycidyl nitrate. Claim 1 has been amended to include the allowable subject matter of the polycaprolactone. Support for such amendment to independent Claim 1 is described in the Applicants' application. Accordingly, since newly amended Claim 1 incorporates the allowable subject matter in Claim 3, Claim 1 and its dependent Claims 2-10 should also overcome the 103(a) rejection and should be in condition for allowance.

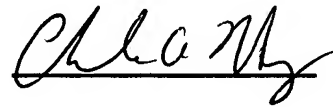
The Commissioner is authorized to charge any fees associated with filing of this response and petition for extension to Deposit Account No. 50-0931.

Applicants submit that all grounds for rejection of claims presented herein have been addressed and amended as such. Accordingly, Claims 1-11, 13-15, 17-19, 21-22. will be before the Examiner for prosecution on the merits is respectfully requested.

Applicants invite the Examiner to call the undersigned if clarification is needed on any aspect of this response, or if the examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

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Respectfully Submitted,



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